

**From:** [PETERSON Jenn L](#)  
**To:** [Eric Blischke/R10/USEPA/US@EPA](#)  
**Subject:** RE: Dioxin TRV - Fish  
**Date:** 09/16/2008 10:44 AM

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In general this is true for fish (the opposite is true for birds and both are important for mammals), but we have some high PCB detections.

Here is the list:

Non-ortho PCBs  
3,3',4,4'-TCB (77)  
3,4,4',5-TCB (81)  
3,3',4,4',5-PeCB (126)  
3,3',4,4',5,5'-HxCB (169)  
Mono-ortho PCBs  
3,3',4,4'-PeCB (105)  
2,3,4,4',5-PeCB (114)  
2,3',4,4',5-PeCB (118)  
2',3,4,4',5-PeCB (123)  
2,3,3',4,4',5-HxCB (156)  
2,3,3',4,4',5'-HxCB (157)  
2,3',4,4',5,5'-HxCB (167)  
2,3,3',4,4',5,5'-HeCB (189)

-----Original Message-----

From: Blischke.Eric@epamail.epa.gov  
[mailto:Blischke.Eric@epamail.epa.gov]  
Sent: Tuesday, September 16, 2008 10:36 AM  
To: PETERSON Jenn L  
Subject: RE: Dioxin TRV - Fish

Are these the non-ortho and mono-ortho PCBs? If so, I do not think they will contribute appreciably to dioxin risk given the low TEFs.

Eric

"PETERSON Jenn L" <PETERSON.Jenn@ eq.state.or.us>	Eric Blischke/R10/USEPA/US@EPA	To cc
09/16/2008 10:33 AM	RE: Dioxin TRV - Fish	Subject

O.k. The are listed in that document I sent you - I could also send you my spreadsheet I put together to do the Rhone P. risk assessment if you are curious.

-Jennifer

-----Original Message-----

From: Blischke.Eric@epamail.epa.gov  
[mailto:Blischke.Eric@epamail.epa.gov]  
Sent: Tuesday, September 16, 2008 10:31 AM  
To: PETERSON Jenn L  
Subject: RE: Dioxin TRV - Fish

I did not include them. I really don't know which ones they are nor do I know the TEF to apply.

Eric

"PETERSON Jenn L" <PETERSON.Jenn@ eq.state.or.us>	Eric Blischke/R10/USEPA/US@EPA	To cc
09/16/2008 09:18 AM	RE: Dioxin TRV - Fish	Subject

Eric,

I don't see the PCB dioxin like congeners in your spreadsheets. Am I missing them?

-Jennifer

-----Original Message-----

From: Blischke.Eric@epamail.epa.gov  
[mailto:Blischke.Eric@epamail.epa.gov]  
Sent: Monday, September 15, 2008 1:05 PM  
To: PETERSON Jenn L  
Cc: rgensemer@parametrix.com; Shephard.Burt@epamail.epa.gov  
Subject: RE: Dioxin TRV - Fish

Jennifer, I have calculated a TEC for the smallmouth bass sample with the highest 2,3,7,8-TCDD concentration. I have added the TEFs per the document you just provided. I wasn't sure how to handle the non-2,3,7,8 substituted congeners (e.g., tetrachlorodibenzofuran) and so just applied a TEF of zero. If you have a better number, please add it in.

You can see from the spreadsheet that the calculated TEC for the dioxin compounds is 8.2 pg/g. Unless I made a significant error here, this strongly suggests that we do not need a TRV for dioxin in fish tissue.,

Eric

(See attached file: RM7SMBDioxinTEC.xls)

"PETERSON Jenn L" <PETERSON.Jenn@ eq.state.or.us>  09/15/2008 11:41 AM	To  Eric Blischke/R10/USEPA/US@EPA  cc  Subject  RE: Dioxin TRV - Fish
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For an exposure point concentration, you sum dioxins and furans and dioxin like PCB congeners according to the attached document. Each congener is assigned a TEF that equates its toxicity to 2,3,7,8-TCDD. You then compare that exposure point concentration to the TRV for 2,3,7,8-TCDD. I think Query manager can do it if the Round 3 data is available. There were problems outlined earlier with the fish 2,3,7,8-TCDD TRV used in the Round 2 Report, which is why I would like one developed using SSD methodology.

-Jennifer

-----Original Message-----

From: Blischke.Eric@epamail.epa.gov  
[mailto:Blischke.Eric@epamail.epa.gov]  
Sent: Monday, September 15, 2008 11:21 AM  
To: PETERSON Jenn L  
Cc: ANDERSON Jim M; Shephard.Burt@epamail.epa.gov; Jeremy\_Buck@fws.gov;  
rgensemer@parametrix.com; Robert Neely  
Subject: RE: Dioxin TRV - Fish

We have been through this before. How do you do that?

Eric

"PETERSON Jenn L" <PETERSON.Jenn@ eq.state.or.us>  09/15/2008 10:40 AM	To  Eric Blischke/R10/USEPA/US@EPA  cc  Subject  RE: Dioxin TRV - Fish
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"ANDERSON Jim M"  
<ANDERSON.Jim@eq.state.or.us>,  
Burt Shephard/R10/USEPA/US@EPA,  
<Jeremy\_Buck@fws.gov>, "Robert  
Neely" <Robert.Neely@noaa.gov>,  
<rgensemer@parametrix.com>

You have to calculate a dioxin TEQ for fish. The TCDD screen does not answer the question.

-Jennifer

-----Original Message-----

From: Blischke.Eric@epamail.epa.gov  
[mailto:Blischke.Eric@epamail.epa.gov]  
Sent: Monday, September 15, 2008 10:11 AM  
To: PETERSON Jenn L  
Cc: ANDERSON Jim M; Shephard.Burt@epamail.epa.gov; Jeremy\_Buck@fws.gov;  
Robert Neely; rgensemer@parametrix.com  
Subject: Re: Dioxin TRV - Fish

Jennifer, we went with the 90 pg/g screening criteria for 2,3,7,8-TCDD. We did not look at other dioxin congeners. Based on this screening step, only one sample - a lumbriculus sample collected offshore of the RPAC outfall - exceeds this criteria. As a result, we did not develop TRVs for dioxin.

I just performed a 2,3,7,8-TCDD screen for all tissue data (including Round 3B) collected at Portland Harbor. The highest 2,3,7,8-TCDD fish tissue concentration was a Round 1 smallmouth bass sample collected in the vicinity of RM 7 at 1.49 pg/g (ng/kg).

Burt and Bob, is my recollection accurate?

Eric

"PETERSON Jenn L" <PETERSON.Jenn@ eq.state.or.us> 09/15/2008 08:59 AM	Eric Blischke/R10/USEPA/US@EPA, Burt Shephard/R10/USEPA/US@EPA cc "ANDERSON Jim M" <ANDERSON.Jim@eq.state.or.us>, "Robert Neely" <Robert.Neely@noaa.gov>, <Jeremy_Buck@fws.gov> Subject Dioxin TRV - Fish
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What was the decision on the development of a dioxin TRV for fish? Was the Round 3 Data screened for dioxin TEQ?

-Jennifer

[attachment "DioxinTEQ\_Methods\_EPAJune2008.pdf" deleted by Eric Blischke/R10/USEPA/US]